

Defining Instruction Extensions in a Standard Programming Language

Abstract of the Disclosure

[053] A method is provided for modifying a program written in a standard programming language so that when the program is compiled both an executable file is produced and an instruction is programmed into a programmable logic device of a processor system. The method includes identifying a critical code segment of a program, rewriting the critical code segment as a function, revising the program, and compiling the program. Revising the program includes designating the function as code to be compiled by an extension compiler and replacing the critical code segment of the program with a statement that calls the function. Compiling the program includes compiling the code with an extension compiler to produce a header file and the instruction for the programmable logic device. Compiling the program also includes using a standard compiler to compile the remainder of the program together with the header file to generate the executable file.